

HUC0307010310 (Wise Creek) TMDL Implementation Plan January, 2003

HUC0307010310 is located entirely inside Jasper County. No other jurisdiction contributes to the drainage. Wise Creek from its headwaters to the Ocmulgee River is the only stream segment in the HUC listed on the Georgia 303(d) list of impaired streams. The pollutant of concern is fecal coliform. The stream is listed as “not supporting” its designated use for fishing.

A Total Maximum Daily Load was established by EPA in February, 2002, that recommends a reduction of 78% in the fecal coliform loading on the stream.

Land use in the watershed is primarily forest, and most of it is in the Oconee National Forest. There is minimal pasturage of cattle and horses and no row cropping. There is no urban or suburban development at this time. The health department reports no more than five septic tank permits in the watershed.

Input from local stakeholders indicated that there was at one time an egg-producing chicken farm at the upper end of the drainage. A large operation, it had a sewage treatment lagoon that may have operated at less than optimum effectiveness. The operation is now closed, and the land will be converted to residential development. Stakeholders reported that cattle farming in the drainage is minimal, with as few as 50 and no more than “a couple of hundred” cows remaining. The extant farming is either residual or “hobby” farms. What cows there are have access to streams generally. The NRCS and Agricultural Extension Service offer Nutrient Management Plan support and assistance through the EQUIP program throughout the county, but there is little participation in the basin due to the low level of agricultural activity. The “hobby farms” are not economically significant and therefore often are not approached by and do not have routine access to the agricultural support programs such as NMP’s and EQUIP.

The consensus of stakeholders familiar with the watershed was that the problem has been removed, and future sampling will probably show Wise Creek to meet the water quality standards of its designated use.

The implementation plan calls for sampling of Wise Creek along its length and of its tributaries using E. coli testing by Jasper County in cooperation with the Northeast Georgia RDC. If the counts remain low, a formal sampling procedure will be implemented to seek to have the stream de-listed. If the counts indicate the problem is real and persistent, further investigations will be carried out to determine the source. Suspected sources in the basin might be cattle and horses in the stream and wildlife from beaver ponds, other wetlands, and forest. Also, the agricultural support community (Extension, NRCS) will seek opportunities to reach land owners with large animals who do not farm on an economic scale sufficient to be “plugged in” to the agricultural support programs.

STATE OF GEORGIA REVISED TMDL IMPLEMENTATION PLAN WATERSHED APPROACH Ocmulgee River Basin

Local Watershed Governments
Northeast Georgia RDC
Jasper County
Butts County

TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. **With input from appropriate stakeholder groups, a TMDL Implementation Plan has been developed for a cluster of impaired streams and the corresponding pollutants.** The impaired streams are located in the same sub-basin identified by a HUC10 code (Figure 1).

This Implementation Plan addresses an action plan, education/outreach activities, stakeholders, pollutant sources, and potential funding sources affecting the sub-basin. In addition, the Plan describes (a) regulatory and voluntary practices/control actions (*management measures*) to reduce target pollutants, (b) milestone schedules to show the development of the management measures (*measurable milestones*), (c) a monitoring plan to determine the efficiency of the management measures and measurable milestones, and (d) criteria to determine whether substantial progress is being made towards reducing pollutants in impaired waterbodies. The overall goal of the Plan is to define a set of actions that will help achieve water quality standards in the state of Georgia. Following this section is information regarding individual segments.

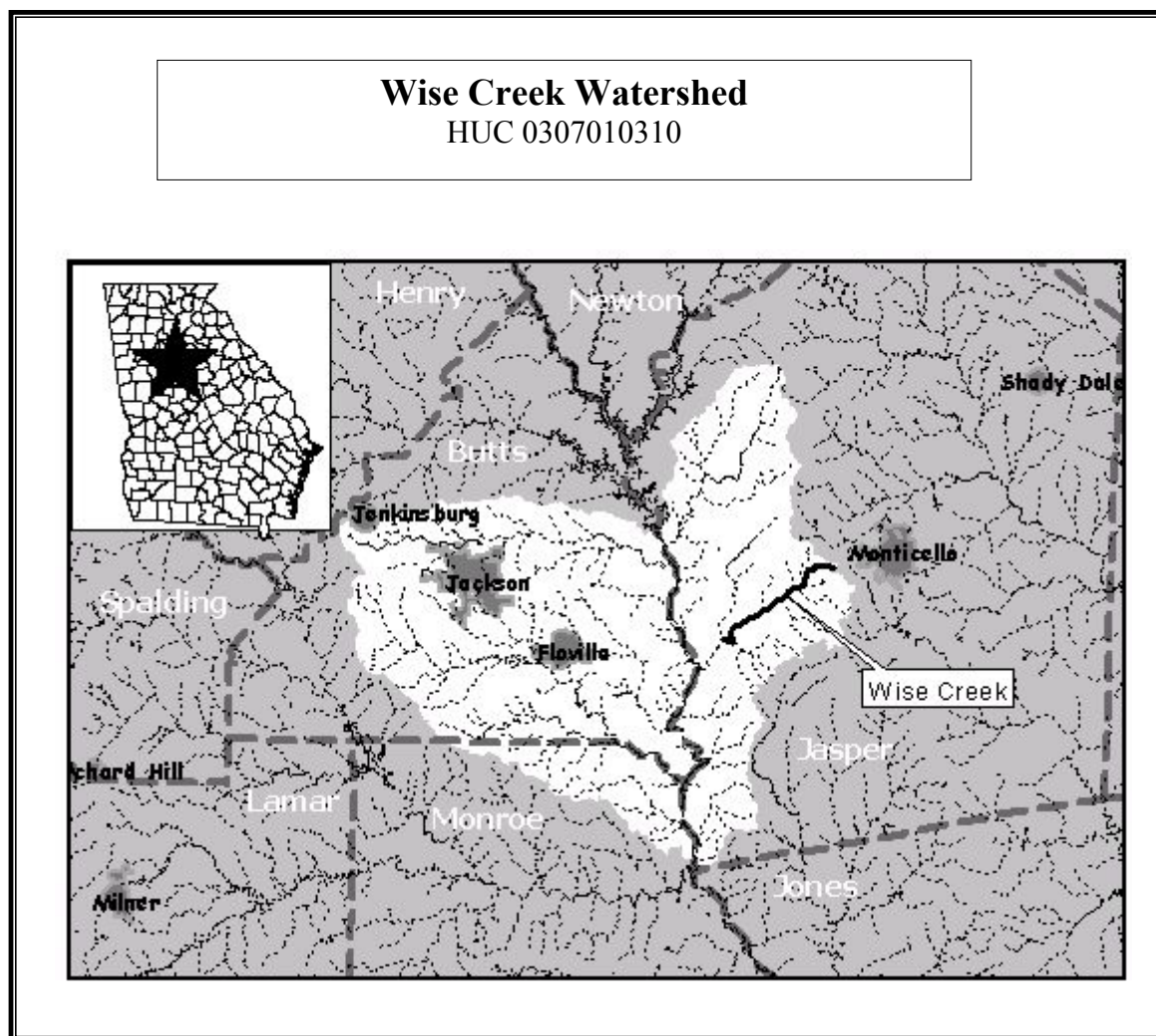


FIGURE 1

Impaired Waterbody*	Impaired Stream Location	Impairment
1. Wise Creek	Headwaters to Ocmulgee River	Fecal Coliform

*These Waterbody Numbers are referenced throughout the Implementation Plan.

Action Plan for Wise Creek Watershed

Wise Creek Watershed
HUC 0307010310

POLLUTANT:	SOURCE:	EFFECT:	WHAT CAN I DO?	
			At Home: Community, School	At Work: Business, Government
<input type="checkbox"/> Dissolved Oxygen (DO) <input checked="" type="checkbox"/> Fecal Coliform (FC) <input type="checkbox"/> Sediment <input type="checkbox"/> Metals <input type="checkbox"/> Fish Consumption Guidelines (FCG) <input type="checkbox"/> Other (Please List)	<input type="checkbox"/> Industrial <input type="checkbox"/> Urban <input type="checkbox"/> Agriculture <input type="checkbox"/> Forestry <input type="checkbox"/> Residential <input type="checkbox"/> Other (Please List)	<input type="checkbox"/> Habitat <input type="checkbox"/> Recreation <input type="checkbox"/> Drinking Water <input type="checkbox"/> Aesthetics <input type="checkbox"/> Other (Please List)		

INFORMATION/EDUCATION/OUTREACH ACTIVITIES

An education/outreach component will be used to enhance public understanding of and participation in implementing the TMDL Implementation Plan. List of all previous and planned information/education/outreach activities.

Responsible Organization Or Entity	Description	Impacted Waterbodies*	Target Audience	Anticipated Dates (MM/YY)
NRCS & Ag Extension	Continue to publicize the NMP program and EQUIP program to reduce cattle farming impact on streams.	1	Agriculture	Ongoing
NRCS & Ag Extension	Publicize the value and importance of minimizing direct stream contact of horses and cattle. Newspaper articles and civic group presentations will be used.	1	Hobby farms not economically productive and therefore not usually accessing the agricultural support community.	2003 and ongoing
Jasper County Health Department	Educational program to encourage septic tank maintenance on a regular basis with pumping every 5 years.	1	Private land owners	Ongoing

STAKEHOLDERS

EPD encourages public involvement and the active participation of stakeholders in the process of improving water quality. Stakeholders can provide valuable information and data regarding their community and the impaired water bodies and can provide insight and/or implement management measures.

List of local governments, agricultural organizations or significant landholders, commercial forestry organizations, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

Name/Organization	Address	City	State	Zip	Phone	E-Mail
Phil Peevey/Jasper County Commission	162 North Warren Street	Monticello	GA	31064	706-468-4900	n/a
Ray Spencer/Natural Resources Conservation Service	205 E. Jefferson St.	Madison	GA	30650	706-593-3192	n/a
Melba Bridges Jasper County Health Department	366 East Green Street	Monticello	GA	31064	706-468-6850	
Jean Walter, USDA Agricultural Extension	145 East Washington Street	Monticello	GA	31064	706-468-6479	

WATER BODIES/STREAMS COVERED IN THIS PLAN:

These impaired streams are located in the same sub-basin identified by a HUC10 code. Most of the information contained in this section comes from the 303(d) list and has been completed by employees of the EPD Water Protection Branch. Data that placed stream on 303(d) list will be provided upon request.

Waterbody Name #1	Location	Miles/Area Impacted	Use Classification	Partially Supporting/ Not Supporting (PS/NS)
Wise Creek	Headwaters to Ocmulgee River	6	Fishing	Not Supporting
Primary County	Secondary County	Second RDC	Source (Point/ Nonpoint)	
Jasper			Nonpoint	
Pollutants	Water Quality Standards	Required Reduction	TMDL ID	Date TMDL Established
Fecal Coliform	1,000 per 100 ml (geometric mean Nov-April) 200 per 100 ml (geometric mean May-Oct)	78%		February 2002

POLLUTANT SOURCES

It is important to recognize the potential source(s) causing water quality impairment. Each source must be controlled to comply with target TMDL/Load Allocations for each pollutant. Included is a description of how the sources contribute to the impairment and the waterbody that is impaired.

List of major nonpoint source categories and sub-categories or individual sources (Urban Runoff, Agriculture, Forestry, Municipal Sewage Treatment Plant)

Pollutant	Sources of Pollutants	Description of Contribution To Impairment	Impacted Waterbodies*
Fecal coliform	Agriculture	Waste treatment lagoon associated with large chicken-egg production facility now closed.	1
Fecal coliform	Agriculture/large lot residential	Cattle and horses with direct access to the stream	1

MANAGEMENT MEASURES, MEASURABLE MILESTONES AND SCHEDULE

(i.e. Local codes and ordinances, Erosion and Sedimentation Control, Storm Water Management, Local water resource monitoring)

The following table lists management measures that have been or will be implemented to achieve water quality standards and the load reductions established in the TMDL. The management measures, including regulatory or voluntary actions or other controls by governments or individuals, specifically apply to the pollutant and the waterbody for which the TMDL was written. A description is provided of how these management measures are/will be accomplished through reliable and effective delivery mechanisms, and how these management measures are/will help achieve the target TMDL. Included is the source of the pollutant, anticipated/past effectiveness of the management measure (very effective, somewhat effective, not effective), the current status (i.e. enforced, in-progress, planning), and measurable milestones and schedule. Milestones are used to measure progress in attaining water quality standards and to determine whether management measures are being implemented.

Management Measure	Responsible Government, Organization or Entity		Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Formal sampling for fecal coliform	Jasper County		Sample Wise Creek at USGS station # 02210998 at least four times x four samples within 30-day period using prescribed sampling techniques	8/2003 – 7/2004	To be determined	Voluntary
Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness			
Fecal coliform	Unknown	1	Demonstrating compliance with water quality standards			
Schedule						
Measurable Milestones						
Pollutant(s) Affected	Sources of Pollutant(s)	Description	Projected Date	Status	Regulatory/Voluntary	
Preliminary survey of E. coli levels	Jasper County, NEGRDC	Sample several locations for E. coli levels, in more thorough phase dry and wet weather will be conducted to seek delisting of the stream.	5/2003-8/2003	Planned	Voluntary	
Pollutant(s) Affected	Sources of Pollutant(s)					
Fecal coliform	Agriculture, wildlife	1				
Measurable Milestones		Start	End	Comments		
Design and carry out a survey of selected sites in the Wise Creek drainage, report and map results		05/2003	06/2003	Results will determine next steps		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Extensive sampling for E. coli	Jasper County	Continue E. coli sampling to determine precise sources of pollutant	08/2003	To be determined	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	Unknown	1	Proven effective methodology to isolate sources

Measurable Milestones	Schedule		Comments
	Start	End	
Determine the most likely geographic location of sources of pollutant	8/2003	10/2003	If initial sampling shows high concentrations of E. coli, or formal sampling for fecal coliform fails to provide data for delisting, then more detailed sampling will be carried out to pinpoint sources.

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Education of hobby farmers	Jasper County, NRCS	Actively seek to engage land owners with large animals not generating income in learning about the value of, and practices to achieve, keeping animal waste out of direct contact with streams.	08/2004	Potential	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	Large animals	1	Known to reduce fecal coliform.

Measurable Milestones	Schedule		Comments
	Start	End	
Develop brochure and other materials to distribute	8/2004	10/2004	
Contact local civic groups, landowners to distribute information	10/2004	ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Re-analysis by BASINS of prior TMDL	EPA	Incorporate implementation activities and later monitoring into BASINS model to re-evaluate TMDL on 5-year anniversary of plan	2007	Planned	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	Large animals	1	Known to reduce fecal coliform.

Measurable Milestones	Schedule		Comments
	Start	End	
Develop brochure and other materials to distribute	8/2004	10/2004	
Contact local civic groups, landowners to distribute information	10/2004	ongoing	

POTENTIAL FUNDING SOURCES The identification and discussion of dedicated funding is important in determining the economic feasibility of the above-mentioned management measures.

[illegible]

MONITORING PLAN

The purpose of this monitoring plan is to determine the effectiveness of the target TMDL and the management measures being implemented to meet water quality standards. List of previous, current or planned/proposed sampling activities or other surveys. (Monitoring data that placed stream on 303(d) list will be provided if requested.)

[illegible]

CRITERIA TO DETERMINE WHETHER SUBSTANTIAL PROGRESS IS BEING MADE

The following set of criteria will be used to determine whether any substantial progress is being made towards reducing pollutants in impaired waterbodies and attaining water quality standards. Discussion on each criteria is recorded in the space provided. Additional relevant criteria are presented in comments.

Percent of concentration or load change (monitoring program) _____

If monitoring results show that it is unlikely that the TMDL will be adequate to meet water quality standards, revision of the TMDL may be necessary.

- Categorical change in classification of the stream (delisting the stream is the goal) _____
It is believed that the conditions causing listing have been removed. The initial monitoring is designed to test this, and the follow-up monitoring designed to re-classify the stream as supporting its designated use.

- Regulatory controls or activities installed (ordinances, laws) _____

- Best management practices installed (agricultural, forestry, urban) _____
If initial monitoring suggests continued impairment, introduction of BMP's by education and agricultural support programs should achieve 25% reduction in direct access of large animals to streams each year until all streams have natural vegetated buffers.

COMMENTS

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**Environmental Protection Division of the Department of Natural Resources,
State of Georgia.**